

is quite independent of the particular form that has been given to it in the above suggestion.

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A COMMENT ON PSEUDO-GEOMETRY.

The article of Mr. Chas. H. Chase on "Pseudo-Geometry" in the last issue of *The Monist* (pp. 465-467) has most certainly been welcomed by all mathematicians, desirous of keeping our infallible science free from absurdities and chimeras. In fact it is surprising how the fallacies of Lobatchevsky and Bolyai could find so many followers. I maintain that Euclid's Ax. XI does not permit the existence of what its promoters call "non-Euclidean geometry" etc. Permit me to prove my position.

Two straight lines in a plane either intersect in one point or they are parallel. This fact is so simple that Euclid did not even deem it necessary to mention it as an axiom; however, it is necessary to bear in mind, that he had no conception of an unlimited space, plane or line, and that he reckoned with *positive* magnitudes exclusively. Intersecting straight lines converge towards their point of intersection and diverge from it, which fact, if the point of intersection lies within the illustration (drawing), can be observed by ocular inspection. It was the practical geodetist Euclid, who gave in his Axiom XI the means to ascertain the direction of convergency, if the point of intersection is at a distance. Now as much as the sum of the two inner angles on the side of convergency is less than two right angles, so much does it exceed 180° on the side of divergency, for the sum of all four of these angles equals 4 right angles. For the case that the sum of the inner angles on either side of the transversal amounts to exactly 2 right angles, this indicates neither convergency nor divergency in either direction: the two lines are *parallel*.

Euclid deduces from Axiom XI the theorem that *parallels intersect any transversal at equal angles*, which he makes use of to prove, that the sum of the three angles of a plane triangle equals 2 right angles. Perhaps it might have been of advantage to give the above wording to the axiom upon which to base the theory of parallels and make the present official wording a scholium.

May these explanations help to expel from exact science a plane that in fact is part of a sphere with an infinite radius, a triangle in

which the sum of the angles is less than 2 right angles, and a space of more than three dimensions.

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MR. GERALD CATOR'S SCHOLASTIC GOD-IDEA.

Mr. Gerald Cator's article "*Id Quo Majus Cogitari Nequit*" is indeed what he calls it, "a scholastic essay." The character of his whole thought is scholastic and its deductions follow the method of scholastic logic. Modern thought has become alienated from this method of argumentation, and we feel sure that naturalists will simply turn their backs upon it. Nevertheless the article contains a good deal of thought which because of a general opposition to scholasticism is at present neglected. We are keenly conscious of the shortcomings of this almost mediæval mode of thought, and it seems strange that there are thinkers to-day who cling to it with such tenacity. But modern thinkers, especially naturalists, are apt to overlook the objective significance of pure logic and of all the interrelations implied in purely formal thought. It is for this reason that we deem it worth while to understand scholasticism and to preserve what is true in it.

Mr. Cator is certainly right when he insists, "that if to any degree we know anything, we can not be perfectly ignorant of anything else. . . . Blank ignorance as to the nature of things is in the strictest sense impossible. . . . Once true, always true, etc."—truths so often ignored by both the agnostics and the pragmatists.

Our thought indeed tells us something about the nature of reality, and modern naturalists use the same scholastic arguments much more than they themselves know. There is more apriorism even in a man like Haeckel than he himself is aware, although the modern naturalist is in the habit of denouncing apriorism and commonly thinks himself free from it.

The editor has treated Mr. Cator's subject in a recently published book entitled *God: An Inquiry into the Nature of Man's Highest Ideal and a Solution of the Problem from the Standpoint of Science*, and there is an agreement in the titles themselves, though Mr. Cator expresses it in abstract and more ponderous style for which the Latin language is more appropriate, saying "*Id Quo Majus Cogitare Nequit*." Considering the result, the agreement as well as the differences are obvious. While we believe in a center that